

REMARKS

This reply is responsive to the non-final office action mailed October 31, 2007 ("Office Action"). An Information Disclosure Statement under 37 CFR §1.97(c)(2) is filed concurrently herewith.

Applicant thanks the Examiner for the courtesy of the telephonic interview with its undersigned representative on February 5, 2008. In accordance with the interview, independent claims 1, 3, 12, 25, and 47 have been amended as discussed without prejudice for the Examiner's further consideration and are believed to be allowable. Dependent claims 5, 13 and 16 have also been amended as explained below. Claim 26, 30, and 52 has been cancelled without prejudice or disclaimer to expedite prosecution. Claims 29 and 31-36 have been withdrawn by the Examiner in the Office Action. No new matter has been added. Claims 1-28, 30 and 47-52 remain pending in this application and are believed to be in condition for allowance.

Claim Rejections – 35 USC 102

Claims 3-8, 12-24, and 47-51 stand rejected under 35 USC 102(b) as being anticipated by U.S. Patent 1,097,458 to McKinney ("McKinney"). Claims 3, 12, and 47 are independent and addressed first below. This rejection is respectfully traversed in view of the amendments herein and withdrawal of the rejection is requested.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

As discussed during the interview, the preamble of independent claims 3, 12, and 47 have been amended to clarify and more positively recite that the claimed invention is directed to a “continuous hinge mountable along substantially the entire length of a hinged object,” in contrast to the shorter butt/strap type hinge disclosed by McKinney.

As amended, claim 3 requires “*a base portion having a substantially flat surface ..., and at least one mounting portion having a first substantially flat top surface and a second surface with a thickness defined therebetween, the first mounting portion surface offset and parallel to the first base portion surface.*” Claim 3 further recites “at least one hole defined by the mounting portion between the first surface and the second surface....” McKinney does not teach or fairly suggest a continuous hinge having at least the foregoing elements.

McKinney discloses a butt/strap hinge having “flat edge portions” 7 or 8 (*see* FIGS. 2 and 3, and Col. 2, lines 67-77) that attach against a hinged object, which might be considered “base portions.” McKinney further discloses that “screw seats 15 are formed in depressed portions 10, 11 of the hinge” (*see same Figures and Col. 2, lines 85-87.*), which might be considered “mounting portions.” However, McKinney does not disclose these mounting portions as being “offset and parallel to the first base portion surface” as required by claim 3. Rather, McKinney teaches that mounting portions 11, 12 lie in the same plane as base portions 7 or 8. Alternatively, even assuming that the “bases 16 of the screw seats” in McKinney (Col. 2, line 92) were instead considered the claimed “mounting portions,” those mounting portions still are not “offset and parallel” to the base portions 7 or 8 as required by claim 3. Accordingly, claim 3 is not anticipated by McKinney and believed to be allowable.

Similarly to claim 3, independent claims 12 and 47 also require a mounting portion “*offset and parallel*” to the base portion of the hinge. Accordingly, claims 12 and 47 are believed to be allowable over McKinney for at least these same reasons as claim 3.

Claims 3 and 12 each further require “an annular reinforcement disposed on the second surface of the mounting portion proximate to the hole, the reinforcement disposed in a longitudinally-extending cavity defined by the mounting portion and base portions.” Claim 47 similarly requires the mounting portion defining a “longitudinally-extending cavity” and a “work hardened reinforcing ring ...disposed on the underside of the raised mounting portion around the hole, the ring extending into the cavity radially outwards from the hole....” McKinney does not teach or suggest either a cavity formed by the mounting portion as claimed, or an annular reinforcement or reinforcing ring disposed in the cavity by the hole. As noted above, both the hole mounting and base portions in McKinney lie in the same plane. Accordingly, claims 3, 12, and 47 are further distinguishable from McKinney and allowable for these additional reasons.

Claims 4-8, 13-24, and 48-51 are dependent from independent claims 3, 12, and 47, respectively. These dependent claims are believed to be allowable with their independent claims for at least the same reasons and additional limitations added which further distinguish over McKinney.

Claim Rejections – 35 USC 103

Claims 1-28, 30, and 47-52 stand rejected under 35 USC 103(a) as being unpatentable over U.S. Patent 5,778,491 to Baer (“Baer”) in view of McKinney. Claims 1, 3, 12, 25, and 47 are independent and will be addressed first below. This rejection is respectfully traversed in view of the claim amendments and withdrawal of the rejection is requested.

“To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.” MPEP 2143.02 (citing *In re Royka*, 490 F.2d 981 (CCPA 74)) (emphasis added). Furthermore, “[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art.” MPEP 2143.02 (citing *In re Wilson*, 424 F.2d 1382, 1385 (CCPA 1970)).

For at least the same reasons discussed above with respect to the rejections under 35 U.S.C. 102, claims 3-8, 12-24, and 47-51 require elements not disclosed or fairly suggested by McKinney such as the mounting portions being *offset and parallel* to the base portions and a *longitudinally-extending cavity* defined by the offset mounting portion. Although Baer discloses a continuous hinge, the leaves are completely flat. Baer thus does not make up the deficiencies of McKinney necessary to establish a *prima facie* case of obvious since all the claim limitations are not taught or fairly suggested by either reference alone or in combination. Accordingly, claims 3-8, 12-24, and 47-51 are distinguishable and believed to be allowable.

Similarly to independent claims 3, 12, and 47, independent claims 1 and 25 require *inter alia* (i) mounting portions *offset and parallel* to the base portions, (ii) mounting holes in such an offset mounting portion, and (iii) a *longitudinally-extending cavity* defined by the offset mounting portion. None of these elements are disclosed or fairly suggested by McKinney or Baer, either alone or in combination, for the same reasons presented above. Accordingly, independent claims 1 and 25, and dependent claims 2, 9-11, 26-28, and 30 depending variously from these independent claims are believed to be allowable.

Considering Applicant’s invention as a whole, MPEP 2141.02 (citing *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530 (Fed. Cir. 1983)), the claimed continuous hinge includes *longitudinally-extending* mounting portions (offset and parallel to the base hinge portions which

are abutted against a hinged object) having the fastener mounting holes formed therein as shown in Applicant's FIGS. 4, 6, and 8. In contrast to the lighter-duty butt/strap hinge of McKinney which has a plurality of individual circular-shaped mounting portions with raised holes/screw seats formed therein, Applicant's heavy-duty hinge with claimed longitudinally-extending mounting portions provide a longer and wider hinge mounting hole structure that more uniformly distributes the load of tall and heavy architectural/commercial doors.¹ These loads and forces are transmitted through the fasteners to the hinge mounting portions over a significantly larger area than McKinney's many small, individualized mounting portions. Accordingly, the claimed continuous hinge mounting structure provides better resistance to screw pull-through failures typically encountered with heavy commercial doors. McKinney's lighter-duty hinges are ill-suited for such commercial doors applications. In addition, Applicant's claimed longitudinally-extending cavity allows work hardened fastener hole reinforcements to be formed below the mounting portions for providing better resistance to screw pull-through failures² in contrast to McKinney's formed, but unhardened screw holes. Such hardened fastener hole reinforcements are desirable for heavier commercial door applications to prevent pull-through because the hinges are typically mounted to steel doors/frames with hardened steel screws. While McKinney's vintage 1911 era hinge with unhardened and unreinforced screw holes may provide acceptable service for ordinary unhardened steel wood screws driven into light-weight wooden doors/frames, McKinney's hinge would not provide suitable service in modern heavy commercial door hanging applications.

In sum, the obviousness rejection is believed to be overcome and the pending claims are believed to be in condition for allowance.

¹ See generally Applicant's disclosure, paragraph 0006.

² See, e.g. Applicant's disclosure, paragraphs 0016 and 0018.

Claim 5, dependent from claim 3, has been amended to recite that the cavity below the mounting portion contains an intumescent fire-resistant material since the cavity limitation has been incorporated into independent claim 3. Support for this amendment is found at least in Applicant's paragraph 0076 and FIGS. 7C & 7D. No new matter is added.

Claim 13 has been revised to depend from claim 3 and is further amended to recite that the annular reinforcement disposed in the cavity is work-hardened. Support for this amendment is found at least in Applicant's paragraph 0016 and original claim 18. No new matter is added.

Claim 16, dependent from independent claim 12 through claim 15, has been amended to clarify the claim. No new matter is added.

Conclusion

In view of the foregoing amendments and remarks, Applicant respectfully requests favorable reconsideration and allowance of all pending claims. If there are any remaining issues that may be resolved by telephone to expedite allowance, the Examiner is kindly requested to contact the Applicant's undersigned representative at 215.979.1554.

Respectfully submitted,

Dated: February 21, 2007

By:


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